ABSTRACT OF THE DISCLOSURE

The invention provides a small optical device with which incident light can be demultiplexed. The optical device includes a demultiplexing portion 4 (first optical member) separating TE waves and TM waves of incident light of a wavelength λ and an optical fiber 1 (optical input portion) inputting incident light into the demultiplexing portion 4. The demultiplexing portion 4 has a periodically changing refractive index. The angle defined by the first reciprocal lattice vector α_1 and the second reciprocal lattice vector α_2 of the demultiplexing portion 4 at the wavelength λ is not greater than 90°. In the direction of the first reciprocal lattice vector α_1 the wave number of the TE wave is larger than the wave number of the TM wave. In the direction of the second reciprocal lattice vector α_2 the wave number of the TE wave is smaller than the wave number of the TM wave. The optical fiber 1 inputs the incident light in a direction that is parallel to a plane including the first reciprocal lattice vector α_1 and the second reciprocal lattice vector α_2.